Urdu Ezafe — Phrasal Affix or Clitic?

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Not everything should be put into the morphology
Introduction

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- Clitics: are they part of the morphology?
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- Huge discussion about architectural questions and terminology: *phrasal affixes* vs. *clitics*
- We believe NO — clitics should be analysed postlexically
- The expressions of possession in Urdu are clitics
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### Genitive

punjaab=kaar sher  
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‘Punjab’s Lion’
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**Genitive**

punjaab=kaa sher  
Punjab=Gen.F.Sg lion.M.Sg.Nom   
‘Punjab’s Lion’

**Ezafe**

sher=e punjaab  
lion.M=Ezafe Punjab.Nom  
‘The Lion of Punjab’
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We here give a short overview over the Genitive (as the “normal” construction), but focus mainly on *Ezafe*.

Our main concern is with the interplay of morphology, syntax and prosody and sorting through architectural assumptions made by others (vs. ourselves).

**Main Question:** Should *Ezafe* be analysed as part of morphology (“phrasal affix” as proposed in HPSG) or rather as a clitic, triggering an interaction of prosody and syntax?
The Genitive

Urdu is a head-final language:

- Genitive marker inflects for number and gender with the head noun (cf. Payne 1995).
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<table>
<thead>
<tr>
<th>Genitive Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>paakistaan=kii</td>
</tr>
<tr>
<td>Pakistan.M=Gen.F.Sg government.Nom.F.Sg</td>
</tr>
<tr>
<td>‘Pakistan's government’</td>
</tr>
</tbody>
</table>
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Butt and King (2004) argue that case markers in Urdu (including the genitive) should be analyzed as case clitics (not postpositions).
Even though the genitive \( k \)- is unique in Urdu among the case markers because it inflects, it patterns with the other case markers in all other respects.

Butt and King (2004) argue that case markers in Urdu (including the genitive) should be analyzed as case clitics (not postpositions).

Since clitics are independent functional items as far as the syntax is concerned (they are “little words”), Butt and King (2004) accord case markers their own terminal node.
Structural Representation of Case

→ Case markers are functional heads of a KP (Butt and King 2004):

\[ \text{KP} \rightarrow \text{NP[obl]} \ K \ (\text{General Schema}) \]
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\[ KP \rightarrow NP[obl] \ K \] (General Schema)

Specialized Rule for Genitive
(Structures from the Urdu ParGram Grammar):

CS 1: \( NP \)

\( KP_{poss} \)

\( NP \)

\( K_{poss} \)

\( N \)

\( PRED \)

\( 'hukUmat' \)

\( NTYPE \)

\( \{ COMMON \, count \} \)

\( \{ common \} \)

\( NSEM \)

\( NSEE \)

\( proper \)

\( \{ LOCATION\_TYPE \, country, \, PROPER\_TYPE \, location \} \)

\( \{ PROPER \} \)

\( SEM\_PROP \)

\( \{ SPECIFIC \} \)

CASE gen, NUM sg, PERS 3

GEND fem, NUM sg, PERS 3

"pAkistAn kI hukUmat"
Structural Representation of Case II

CS 1: "pAkistAn kI hukUmat"

<table>
<thead>
<tr>
<th>NP</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>KPposs</td>
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<td></td>
</tr>
<tr>
<td>NP</td>
<td>Kposs</td>
<td>N</td>
</tr>
<tr>
<td>N</td>
<td>kI</td>
<td>hukUmat</td>
</tr>
<tr>
<td>pAkistAn</td>
<td></td>
<td></td>
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</tbody>
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PRED: 'hukUmat'
NTYPE: COMMON count
NSEM: common

PRED: 'pAkistAn'
NTYPE: LOCATION-TYPE country, PROPER-TYPE location
NSEM: proper

SPEC: POSS
NTYPE: common
NSEM: PROPER

SPEC: SEM-PROP [SPECIFIC]
CASE: gen, NUM sg, PERS 3
GEND: fem, NUM sg, PERS 3
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   KPposs NP
   NP Kposs N
   N kI hukUmat

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→ General idea: functional heads (like other “little words”) can be clitics.
Structural Representation of Case II

CS 1: NP "pAkistAn kI hukUmat"

General idea: functional heads (like other “little words”) can be clitics.

Note that the prosody and syntax here do not contradict each other: kii shares a mother node with the modifier, which is also its prosodic host.
Case Markers are Clitics

Evidence supporting the analysis that case markers are clitics (Butt and King 2004):
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1 **Coordination** (cf Zwicky and Pullum 1983, criterion E): case markers have scope over coordination; inflectional affixes don’t. Case markers therefore rather attach to phrases and have to be placed by the syntax.
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1. **Coordination** (cf Zwicky and Pullum 1983, criterion E): case markers have scope over coordination; inflectional affixes don’t. Case markers therefore rather attach to phrases and have to be placed by the syntax.

2. **Intervening Clitics**: Focus clitics such as $hi/b^hii$ ‘only/also’ may be placed between the case marker and the nominal: Noun=$hi$=case ($sher=hi=kaa$). These cannot separate an affix from its stem.
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2. **Intervening Clitics:** Focus clitics such as *hi/bhii* ‘only/also’ may be placed between the case marker and the nominal: Noun=*hi=case (sher=hi=kaa)*. These cannot separate an affix from its stem.

3. **Stress:** Case markers do not carry stress and do not affect the placement of stress while affixes may.
So now that we have seen what “normal” possession looks like in Urdu, let’s turn to the more difficult case of Ezafe.
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(1) ār=e panjaab
    lion=e Punjab
    ‘Lion of Punjab’
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(1) jer=e panjaab
    lion=e Punjab
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The Ezafe-construction expresses a dependency between the head noun and a modifier to the right of the NP: this modifier can be a noun (1) or an adjective (2).
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The Ezafe-construction expresses a dependency between the head noun and a modifier to the right of the NP: this modifier can be a noun (1) or an adjective (2).

(2) sadaa=e buland
    voice=Ez high
    ‘a high voice’
The Problem of Representation

Compare the *Ezafe*-construction in (a) to the genitive in (b):

a) hukuumat=e paakistaan
government=Ez Pakistan
‘Government of Pakistan’

b) paakistaan=kii hukuumat
Pakistan=Gen government
‘Pakistan’s government’
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→ **Problem**: The *Ezafe* is part of the modifying construction — it licenses the modifier *paakistaan*. This should be expressed within the **syntax**. However, **prosodically**, the *Ezafe* is part of the head noun *hukuumat*. 
What is the *Ezafe*?

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- Is it part of the noun morphology?
- Is it a clitic like the case markers in Urdu?
- If it is a clitic, where do clitics in LFG “come in”?
- How would we represent a construction like that and cover all its morpho-syntactic and prosodic aspects?
Samvelian’s Analysis

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- The *Ezafe* is introduced in the morphology and marks the noun as expecting a modifier.

- Its phrasal placement is effected by an EDGE constraint.
Urdu Ezafe is a clitic

Our Analysis: Ezafe is a clitic

→ like the case clitics it can have scope over coordination.
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→ Coordination with *Ezafe*

\[
\text{[ye maal or daulat]=e dunyaa} \\
\text{this material and wealth=Ez world} \\
\text{‘this material and wealth of the world’ (from zarb-e-kaleem by Muhammad Iqbal)}
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[maal or daulat]=ko kumaa-o  
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→ Coordination with Case

\[\text{[maal or daulat]}=\text{ko kumaa-o}\]
material and wealth=Acc earn-Imp.Rude
‘Earn/gather material and wealth!’

→ The *Ezafe* attaches to constituents rather than words.
Architectural Considerations

- Constituents are the business of syntax: places the clitic and represents its special syntactic properties like
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  - having syntactic scope over phrases/coordination, linear position in the string or being part of the modifying constituent.
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- So how should/can this be represented?
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- prosodic incorporation into the head noun on the left

So how should/can this be represented?

- **LFG** with its modular projection architecture allows for a thorough analysis without engendering a need to generate clitics within the morphology (as in HPSG).
Syntax — the C(onstituent)-structure

CS 1: NP
    | NPez
    | NPez EzP
    | N EZ N
    | sher e panjAb
Syntax — the C(onstituent)-structure

- The head of the construction is initial: *fer*
  ‘lion’

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     |
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- The \textit{Ezafe} is inserted at a terminal node and is thus analyzed as a syntactic word in its own right: EZ

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Syntax — the C(onstituent)-structure

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The *Ezafe* is inserted at a terminal node and is thus analyzed as a syntactic word in its own right: *EZ*

It licences a modifier to its right: *panjAb* ‘Punjab’

Together, they form the modifying constituent for the head noun *fer*.
Syntax — the F(unctional)-structure

"sher e panjAb"

<table>
<thead>
<tr>
<th>PRED</th>
<th>'sher'</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOD</td>
<td></td>
</tr>
<tr>
<td>NTYPE</td>
<td>[NSYN common</td>
</tr>
<tr>
<td>NSEM</td>
<td>[COMMON count]</td>
</tr>
<tr>
<td>GEND</td>
<td>masc, MOD-TYPE ezafe, NUM sg, PERS 3</td>
</tr>
<tr>
<td>CHECK</td>
<td>_EZAFE +</td>
</tr>
</tbody>
</table>

- LFG’s f(unctional)-structure abstracts away from surface position and constituency and models functional information and dependencies.
Syntax — the F(unctional)-structure

"sher e panjAb"

LFG’s f(unctional)-structure abstracts away from surface position and constituency and models functional information and dependencies.

At f-structure, *sher* is clearly the head of the phrase.
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LFG’s f(unctional)-structure abstracts away from surface position and constituency and models functional information and **dependencies**.

- At f-structure, *fer* is clearly the head of the phrase.
- *panjAb* is the modifier of the head noun.
- The type of modification is registered as being of the *Ezafe* type: MOD-TYPE ezaze.

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Prosody — the P(rosodic)-structure

- LFG’s projection architecture allows for other types of linguistic representations as well. Some that have been argued for: a(rgument)-structure, i(nformation)-structure, p(rosodic)-structure (Butt and King 1998).
Prosody — the P(rosodic)-structure

LFG’s projection architecture allows for other types of linguistic representations as well. Some that have been argued for: a(rgument)-structure, i(nformation)-structure, p(rosodic)-structure (Butt and King 1998).

For Ezafe, we have experimented with p(rosodic)-structure following proposals as to the prosodic hierarchy as formulated within Prosodic Phonology (e.g., Selkirk 1984).
Prosody — the P(rosodic)-structure

\[
\left\{ \left[ \begin{array}{c}
83 \{ \text{CL-FORM} \text{ezafe}, \text{DOMAIN} \text{P-WORD}, \text{P-FORM} \text{sher} \} \\
129 \{ \text{DOMAIN} \text{P-WORD}, \text{P-FORM} \text{panjAś} \}
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135 \{ \text{DOMAIN} \text{P-PHRASE} \}
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- At p-structure the *Ezafe* is not represented as an independent p(rosodic)-word.
Prosody — the P(rosodic)-structure

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- Rather, it is encoded via the feature CL-FORM.
- The CL-FORM *Ezafe* is clearly integrated into the domain of a p-word *fer* at p-structure, although it syntactically shares a mother node with *panjAb* at c-structure.
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The CL-FORM *Ezafe* is clearly integrated into the domain of a p-word *ser* at p-structure, although it syntactically shares a mother node with *panjAb* at c-structure.

The morphological component was not involved in the analysis in any form with respect to *Ezafe*.
Demo — Coordination

Demo/Example of an Coordinated Structure with Ezafe
With the modular architecture of LFG it is possible to represent all aspects of clitics: special syntactic properties as to placement as well as prosodic structure.
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There is no need to generate clitics within the morphological component.

Instead, an interaction between **Prosody** and **Syntax** accounts for the properties of Urdu *Ezafe* (and Persian *Ezafe* as well).
Conclusion

- With the modular architecture of LFG it is possible to represent all aspects of clitics: special syntactic properties as to placement as well as prosodic structure.

- There is no need to generate clitics within the morphological component.

- Instead, an interaction between Prosody and Syntax accounts for the properties of Urdu Ezafe (and Persian Ezafe as well).

- We have not explicitly demonstrated how to deal with Second Position clitics or other types of special clitics, but the basic approach would be the same as illustrated here.
Thank you for listening!
Bibliographie